

REMARKS

Claims 1-41 and 49-56 are pending, with claims 1, 7, 10, 23, 34, 39, 49, and 51 being independent. Claims 1-6, 10-23, 26-30, 34-38, and 49-56 are under consideration as being directed to elected Invention I, with claims 1-6, 10-22, 34-38, 49, 50, and 52-56 being readable on elected Species A; claim 51 being generic to elected Species A and non-elected Species B; claims 26-30 of Species B being linking claims that link together the inventions of Species A and B; and claim 23 of Species B being the base claim of linking claims 26-30. Claims 7-9, 24, 25, 31-33, and 39-41 are withdrawn from consideration as being directed to elected invention I but being readable on non-elected Species B. Claims 4-6, 12-14, 17-22, 36-38, and 50 of Species A are linking claims that link together the inventions of Species A and B.

Request for Consideration of Information Disclosure Statement

An Information Disclosure Statement was filed on February 21, 2008, citing CN 2306386Y, CN 1329458A, and a Chinese Office Action issued on December 21, 2007, in Chinese Patent Application No. 2003101207627. This Information Disclosure Statement is in the image file wrapper of the present application, but was not considered by the Examiner in the Office Action of May 1, 2008. Accordingly, it is respectfully requested that the Examiner consider this Information Disclosure Statement in the next Office Action.

Request for English Translation of Yokoi Apparently Relied on by the Examiner

The Examiner has relied on Yokoi et al. (Yokoi) (JP 2000-160323) in the rejections of claims 1-6, 10-23, 26-30, 34-38, and 49-56 over the prior art. In explaining the rejection of claim 1, for example, the Examiner states "Yokoi discloses . . . wherein the evaporation mask is drawn taut by application of tension (paragraph 5)." However, paragraph [0005] of Yokoi is written in Japanese. Accordingly, it appears that the Examiner is relying on an English translation of Yokoi. However, the Examiner did not provide a copy of the English translation of Yokoi with the Office Action of May 1, 2008. Accordingly, it is respectfully requested that the Examiner provide a copy of the English translation of Yokoi with the next Office Action.

In the meantime, attached hereto are a machine English translation of Yokoi that was downloaded from the Japanese Industrial Property Digital Library, and a List of References Cited by Applicant listing this reference.

Claim Rejections Under 35 USC 102

Claims 1, 2, 4, 5, 10, 12, 13, 15, 17, 18, 20, 21, 23, 26, 28, 29, 34, 36, 37, and 49-56 have been rejected under 35 USC 102(b) as being anticipated by Yokoi et al. (Yokoi) (JP 2000-160323). This rejection is respectfully traversed.

Independent Claim 1

It is submitted that Yokoi does not disclose "at least one mask unit, comprising: a plurality of main apertures, and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 1.

The Examiner states as follows:

Regarding claim 1, Yokoi discloses an evaporation mask in figure 10 formed of a thin film (item 3), wherein the evaporation mask is drawn taut by application of tension (paragraph 5) and comprises: at least one mask unit (item 3), comprising: a plurality of main apertures (item 4), and a plurality of first dummy apertures (item 4) formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask.

The Examiner considers the apertures 4 in FIG. 10 of Yokoi to correspond to both the main apertures and the first dummy apertures recited in claim 1, but has not explained which of the apertures 4 she considers to correspond to the main apertures, and which of the apertures 4 she considers to correspond to the first dummy apertures, which makes it impossible for the applicants to respond to the rejection without speculating about how the Examiner is interpreting Yokoi, thereby prejudicing the applicants.

Accordingly, should the Examiner repeat the rejection, it is respectfully requested that the Examiner provide a marked-up copy of FIG. 10 of Yokoi showing which of the apertures 4 she

considers to correspond to the main apertures recited in claim 1, and which of the apertures 4 she considers to correspond to the first dummy apertures recited in claim 1.

In the event the Examiner considers the first group of eight apertures 4 in the top portion of the mask 3 in FIG. 10 of Yokoi to correspond to the main apertures recited in claim 1, and considers the second group of three apertures 4 in the bottom portion of the mask 3 in FIG. 10 to correspond to the first dummy apertures recited in claim 1, it is submitted that the apertures 4 in Yokoi's mask 3 are not in fact separated into two groups because the dashed lines connecting the two apparent groups indicates that other apertures 4 are present between the two apparent groups but are not shown in FIG. 10. Thus, FIG. 10 actually shows a single continuous group of apertures 4 as can be seen from FIG. 8 of Yokoi, which shows the mask 3 in FIG. 7 drooping away from the film formation surface 6a of the substrate 6 when the electromagnetic device 7 is turned off.

Furthermore, it is not seen where tension is applied to the mask 3 in FIG. 10 of Yokoi because the mask 3 in FIG. 10 of Yokoi is not provided with the holes 34 that are provided in the mask 3 in FIG. 2 of Yokoi that engage with the protuberances 18 of the mask holder 17 in FIGS. 3 and 4 of Yokoi to which tension is applied in the direction of the arrow X1 in FIG. 2 of Yokoi as shown in FIGS. 1, 3, and 4 of Yokoi. Accordingly, it is not seen where the embodiment in FIGS. 7-11 of Yokoi provides the feature "tension is applied to the evaporation mask" recited in claim 1.

It is submitted that the Examiner cannot rely on a combination of features from different embodiments disclosed in Yokoi in an anticipation rejection of claims 1, 2, 4, 5, 10, 12, 13, 15, 17, 18, 20, 21, 23, 26, 28, 29, 34, 36, 37, and 49-56 under 35 USC 102(b) because any such combination would be a modification of Yokoi that can only be relied on in an obviousness rejection under 35 USC 103(a). Here, the Examiner appears to have relied on a combination of the embodiment in FIGS. 1-4 of Yokoi and the embodiment in FIGS. 7-11 of Yokoi.

Furthermore, it is not seen where anything whatsoever in Yokoi indicates that Yokoi considers there to be any differences between any of the apertures 4 of the mask 3 in FIG. 10 of Yokoi. Accordingly, it is submitted that there is no basis whatsoever in Yokoi for the Examiner's position that some unspecified ones of the apertures 4 correspond to the main apertures recited in claim 1, while other unspecified ones of the apertures 4 correspond to the first dummy apertures recited in claim 1. Rather, it appears that the Examiner has arbitrarily denoted some of the apertures 4 as main apertures and others of the apertures 4 as first dummy apertures

based solely on the language of claim 1, such that the Examiner's position is based solely on an impermissible hindsight reconstruction of the invention.

It is submitted that the Examiner cannot simply ignore the fact that claim 1 recites two different types of apertures, i.e., main apertures and first dummy apertures, and that the Examiner must provide some logical basis for her determination that some unspecified ones of the apertures 4 correspond to the main apertures recited in claim 1, while other unspecified ones of the apertures 32 correspond to the first dummy apertures recited in claim 1. Absent such a logical basis, it is submitted that the Examiner has not established a *prima facie* case of anticipation with respect to claim 1.

Furthermore, in the mask 4 in FIG. 2 of Yokoi, the apertures 4 are formed adjacent to one another in a direction perpendicular to the direction of the arrow X1 in which tension is applied. Accordingly, it is submitted that Yokoi does not disclose "first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in claim 1.

Dependent Claim 2

It is submitted that Yokoi does not disclose the feature "wherein the main apertures form an effective deposition area, and the first dummy apertures form an ineffective deposition area" recited in dependent claim 2.

The Examiner states "[r]egarding claim 2, Yokoi discloses the evaporation mask of claim 1, wherein the main apertures form an effective disposition area (see FIG. 10), and the first dummy apertures form an ineffective deposition area (see FIG. 10)." However, it is not seen where anything whatsoever in Yokoi supports the Examiner's position. Nor has the Examiner explained why she considers FIG. 10 of Yokoi to provide these features of claim 2. Furthermore, it is submitted that it readily apparent from FIGS. 1, 5-8, and 12 of Yokoi that all of the apertures 4 in Yokoi's various masks 3, including the mask 3 in FIG. 10 of Yokoi relied on by the Examiner, are used to deposit a film on the film formation surface 6a of the substrate 6. Accordingly, it is submitted that all of Yokoi's apertures 4 form "an effective deposition area" as recited in claim 2, and that none of Yokoi's apertures 4 form "an effective deposition area" as recited in claim 2.

Dependent Claim 4

It is submitted that Yokoi does not disclose "at least two mask units, and further comprising a plurality of second dummy apertures formed outside and adjacent to the outermost mask units in the direction in which tension is applied to the evaporation mask" as recited in dependent claim 4.

The Examiner states as follows:

Regarding claim 4, Yokoi discloses the evaporation mask of claim 2, comprising at least two mask units (item 3), and further comprising a plurality of second dummy apertures (item 4) formed outside and adjacent to the outermost mask units in the direction in which tension is applied to the evaporation mask (paragraph 5).

However, it is not see where any of Yokoi's masks 3 comprise "at least two mask units" as recited in claim 4. Nor has the Examiner explained why she considers Yokoi to disclose this feature of claim 4. Furthermore, it is submitted that each of Yokoi's masks 3 comprises a single mask unit that is used to form a single organic electroluminescent device, such that Yokoi does not disclose "[an] evaporation mask . . . comprising at least two mask units" as recited in claim 4.

With respect to the "second dummy apertures" recited in claim 4, the Examiner has now taken the position that some of Yokoi's apertures 4 correspond to the main apertures recited in claim 1 from which claim 4 indirectly depends; that other ones of Yokoi's apertures 4 correspond to the first dummy apertures recited in claim 1 from which claim 4 indirectly depends; and that still other ones of Yokoi's apertures 4 correspond to the second dummy apertures recited in claim 4. However, the Examiner has not identified which of Yokoi's apertures 4 correspond to the various apertures recited in claim 4 by virtue of its dependence from claim 1. Accordingly, should the Examiner repeat the rejection, it is respectfully requested that the Examiner provide a marked-up copy of FIG. 10 of Yokoi relied on by the Examiner in the rejection of claim 1 or any other figure of Yokoi showing which of Yokoi's apertures 4 she considers to correspond to the main apertures, the first dummy apertures, and the second dummy apertures recited in claim 4 by virtue of its dependence from claim 1.

Furthermore, it is submitted that the Examiner has not provided any logical basis for her determination that various ones of Yokoi's apertures 4 correspond to various ones of the apertures recited in claim 4 by virtue of its dependency from claim 1. Absent such a logical

basis, it is submitted that the Examiner has not established a *prima facie* case of anticipation with respect to claim 4.

Dependent Claim 5

It is submitted that Yokoi does not disclose the feature "wherein the second dummy apertures are formed outside the effective deposition areas where the mask units are formed" recited in dependent claim 5.

The Examiner states as follows:

Regarding claim 5, Yokoi discloses the evaporation mask of claim 4, wherein the second dummy apertures are formed outside the effective deposition areas where the mask units are formed (see FIG. 10).

However, it is not seen where anything whatsoever in Yokoi supports the Examiner's position. Nor has the Examiner explained why she considers FIG. 10 of Yokoi to provide this feature of claim 5. Furthermore, it is submitted that it readily apparent from FIGS. 1, 5-8, and 12 of Yokoi that all of the apertures 4 in Yokoi's various masks 3, including the mask 3 in FIG. 10 of Yokoi relied on by the Examiner, are used to deposit a film on the film formation surface 6a of the substrate 6. Accordingly, it is submitted that all of Yokoi's apertures 4 form "an effective deposition area" as recited in claim 2 from which claim 5 indirectly depends, and that none of Yokoi's apertures 4 "are formed outside the effective deposition areas where the mask units are formed" as recited in claim 5.

Independent Claim 10

It is submitted that Yokoi does not disclose "at least one mask unit, the mask unit comprising a plurality of main apertures and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 10 for at least the same reasons discussed above that Yokoi does not disclose the same features of claim 1.

Furthermore, it is submitted that Yokoi does not disclose "forming a first dummy pattern area outside the effective luminescent area through the first dummy apertures" as recited in claim 10.

The Examiner states "forming a first dummy pattern area (area around item 4) outside the effective luminescent area through the first dummy apertures." However, "area around item 4" referred to by the Examiner is merely the solid portions of Yokoi's mask 3 in which the apertures 4 are formed. These solid portions do not form any pattern apart from the pattern of the apertures 4, and thus cannot reasonably be considered to be "a first dummy pattern area" as recited in claim 10. Furthermore, the Examiner has taken the position that some of Yokoi's apertures 4 correspond to the "first dummy apertures" recited in claim 10, but none of the solid portions of the mask 3 around the apertures 4 are formed through any of the apertures 4 as would be necessary for the Examiner's position that the solid portions of the mask 3 around the apertures 4, i.e., the "area around item 4," correspond to "a first dummy pattern area" as recited in claim 10 to be even remotely tenable.

Furthermore, it is submitted that there is no basis whatsoever in Yokoi for any of the thin films 100a (red), 100b (blue), and 100c (green) that are formed on the substrate 6 using Yokoi's masks 3 as shown in FIG. 14 of Yokoi to be considered to be "a first dummy pattern area" as recited in claim 10.

Dependent Claim 12

It is submitted that Yokoi does not disclose the feature "wherein at least two organic EL devices are manufactured in a single process" recited in dependent claim 12.

The Examiner considers FIG. 14 of Yokoi to disclose the above feature of claim 12. However, FIG. 14 of Yokoi shows forming thin films 100a (red), 100b (blue), 100c (green) of the single EL device shown in FIGS. 16 and 17 of Yokoi. Nor does any other portion of Yokoi disclose the above feature of claim 12.

Dependent claim 15

It is submitted that Yokoi does not disclose "a second dummy pattern area is formed outside the effective luminescent area through the first dummy apertures" as recited in dependent claim 15 for at least the same reasons discussed above that Yokoi does not disclose the similar feature of claim 10.

Independent claim 23

It is submitted that Yokoi does not disclose "at least two mask units each comprising a plurality of main apertures and a plurality of second dummy apertures formed outside and adjacent to outermost ones of the mask units in a direction in which tension is applied to the evaporation mask" as recited in independent claim 23 for at least the same reasons discussed above that Yokoi does not disclose the same features of claim 4.

Independent claim 34

It is submitted that Yokoi does not disclose "a plurality of main apertures and a plurality of first dummy apertures formed adjacent to outermost ones of the main apertures in a direction in which tension is applied to the evaporation mask" as recited in independent claim 34 for at least the same reasons discussed above that Yokoi does not disclose or suggest the same features of claim 1.

Independent Claim 49

It is submitted that Yokoi does not disclose "at least one mask unit comprising: at least one main aperture, and at least one first dummy aperture formed adjacent to an outermost at least one main aperture in a direction in which tension is applied to the evaporation mask" as recited in independent claim 49 for at least the same reasons discussed above that Yokoi does not disclose the similar features of claim 1.

Independent claim 51

It is submitted that Yokoi does not disclose "[a] mask unit for an evaporation mask, comprising: a main aperture; and a dummy aperture" as recited in independent claim 51 for at least the same reasons discussed above that Yokoi does not disclose the similar features of claim 1.

Furthermore, it is submitted that Yokoi does not disclose the feature "wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask" recited in claim 51.

The Examiner states as follows:

Regarding claim 51, Yokoi discloses a mask unit (item 3) for an evaporation mask in figure 10, comprising: a main aperture (item 4); and a dummy aperture (item 4); wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask (paragraph 5).

Paragraph [0005] in the attached machine English translation of Yokoi reads as follows:

A method for forming thin film concerning the 1st invention is in a state where a mask was made to meet a film formation surface of a base using a mask with two or more openings, and a base with a film formation surface, As shape of an opening of a mask is transferred, it is a method for forming thin film which carries out membrane formation processing of the thin film in a film formation surface, and membrane formation processing is performed, where tension is given to a mask so that curvature of a mask and bending is suppressed.

However, this paragraph of Yokoi merely states that tension is applied to Yokoi's mask 3 to suppress curvature and bending of the mask 3. It is submitted that nothing whatsoever in this paragraph of Yokoi or in any portion of Yokoi discloses the feature "wherein the dummy aperture prevents the main aperture from being deformed by tension applied to the evaporation mask" recited in claim 51. Nor has the Examiner explained why she considers paragraph [0005] of Yokoi to disclose this feature of claim 51.

Dependent Claims 13, 17, 18, 20, 21, 26, 28, 29, 36, 37, and 50

It is submitted that Yokoi does not disclose the features recited in dependent claims 13, 17, 18, 20, 21, 26, 28, 29, 36, 37, 50, and 52-56 for at least the same reasons discussed above that Yokoi does not disclose or suggest the same or similar features of claims 1, 2, 4, 5, 10, 12, 15, 23, 34, 49, and 51.

Dependent Claims 52-56

It is submitted that dependent claims 52-56 are patentable over Yokoi for at least the same reasons discussed above that claims 1, 10, 34, 49, and 51 from which claims 52-56 depend are patentable over Yokoi.

Conclusion—Claim Rejections Under 35 USC 102

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 1, 2, 4, 5, 10, 12, 13, 15, 17, 18, 20, 21, 23, 26, 28, 29, 34, 36, 37, and 49-56 under 35 USC 102(b) as being anticipated by Yokoi be withdrawn.

Claim Rejections Under 35 USC 103

Claims 3, 6, 11, 14, 16, 19, 22, 27, 30, 35, and 38 have been rejected under 35 USC 103(a) as being unpatentable over Yokoi in view of Himeshima et al. (Himeshima) (U.S. Patent No. 6,469,439). This rejection is respectfully traversed.

Dependent Claim 3

It is submitted that Yokoi and Himeshima do not disclose or suggest the feature "wherein at least one of the first dummy apertures is formed parallel to the main apertures, and at least another one of the first dummy apertures is formed perpendicular to the main apertures" recited in dependent claim 3.

The Examiner considers FIG. 35 to disclose the above feature of claim 3. However, it is not seen where FIG. 35 discloses this feature, and accordingly, absent a more detailed

explanation of the rejection, it is submitted that FIG. 35 does not disclose this feature as alleged by the Examiner. Should the Examiner repeat the rejection, it is respectfully requested that the Examiner provide a marked-up copy of FIG. 35 of Himeshima showing this feature of claim 3.

The applicants made this same request on page 16 of the Request for Reconsideration of January 28, 2008, but the Examiner did not comply with this request or otherwise respond to this request in the Office Action of May 1, 2008.

Dependent Claim 6

It is submitted that Yokoi and Himeshima do not disclose or suggest the feature "wherein at least one of the second dummy apertures is formed parallel to the main apertures of the mask units, and at least another one of the second dummy apertures is formed perpendicular to the main apertures" recited in dependent claim 6.

The Examiner considers FIG. 35 to disclose the above feature of claim 6. However, it is not seen where FIG. 35 discloses this feature, and accordingly, absent a more detailed explanation of the rejection, it is submitted that FIG. 35 does not disclose this feature as alleged by the Examiner. Should the Examiner repeat the rejection, it is respectfully requested that the Examiner provide a marked-up copy of FIG. 35 of Himeshima showing this feature of claim 6.

The applicants made this same request on pages 17 and 18 of the Request for Reconsideration of January 28, 2008, but the Examiner did not comply with this request or otherwise respond to this request in the Office Action of May 1, 2008.

Dependent Claims 11, 14, 16, 19, 22, 27, 30, 35, and 38

It is submitted that Yokoi and Himeshima do not disclose or suggest the features recited in dependent claims 11, 14, 16, 19, 22, 27, 30, 35, and 38 for at least the same reasons discussed above that Yokoi and Himeshima do not disclose or suggest the same or similar features of claims 3 and 6.

Conclusion—Claim Rejections Under 35 USC 103

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 3, 6, 11, 14, 16, 19, 22, 27, 30, 35, and 38 under 35 USC 103(a) as being unpatentable over Yokoi in view of Himeshima be withdrawn.

Rejoinder of the Invention of Non-Elected Species B

Since claim 51 which is generic to elected Species A and non-elected Species B is allowable for the reasons discussed above; since claims 4-6, 12-14, 17-22, 36-38, and 50 of Species A which are linking claims that link together the inventions of Species A and B are allowable for the reasons discussed above; since claims 26-30 of Species B which are linking claims that link together the inventions of Species A and B are allowable for the reasons discussed above; and since claim 23 of Species B is allowable for the reasons discussed above, it is submitted that the applicants are entitled to rejoinder of the invention of non-elected Species B pursuant to 37 CFR 1.141(a) and MPEP 821.04(a). Accordingly, it is respectfully requested that the requirement for an election of species be withdrawn, and that claims 7-9, 24, 25, 31-33, and 39-41, which are currently withdrawn from consideration as being readable on non-elected Species B, be examined on the merits.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

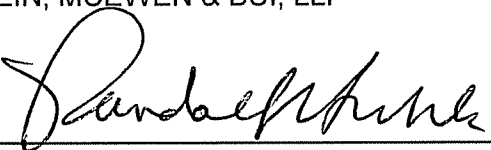
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with the filing of this paper, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

Date: 07/14/08

By: 
Randall S. Svihla
Registration No. 56,273

1400 Eye St., NW
Suite 300
Washington, D.C. 20005
Telephone: (202) 216-9505
Facsimile: (202) 216-9510

Attachments